Allotment Assessment and Evaluation Report for
New Mexico Standards and Guidelines for Public Land Health
Pajarito (#636) – September 17, 2010

Permittee/Lessee		Authorization Number currently unauthorized
Livestock Use	Preference AUMs	Allotment: 00636 — Active: to be determined — Suspended
	Period of Use / Kind of livestock	Allotment: Pajarito — Number/Kind: n/a — Season of Use: n/a
	Percent Public Land	AUMs are authorized at 100% public land
Allotment Profile	Physical Description	Pajarito Allotment is located directly north of Rinconada in Rio Arriba County, New Mexico. The allotment encompasses the BLM lands near the Rio Grande riparian area extending upslope and including parts of the mesa top. It is dominantly covered by Artemisia tridentata (sagebrush). The elevation ranges from approximately 6000 to 7000 feet. Eight soil types are identified within the BLM parcels. Soils within the parcels are: Chita loam, 0 to 5 percent slopes. These soils consist of loams, with rooting depths over 60 inches. Parent material of alluvium and eolian sediments derived from sandstone and igneous rocks comprise these soils. Average annual precipitation in this area ranges from 13 to 16 inches. Hazards for erosion are slight. Vegetation is characterized by western wheat, blue grama, Indian ricegrass, galleta, needle and thread, fourwing saltbush and sagebrush. Fernando-Hernandez association, nearly level. The soil consists of loam and clay loams, with rooting depths over 60 inches. Parent materials of alluvium derived from mixed sources comprise this soil. Average annual precipitation ranges between 10 and 14 inches. Hazards for erosion are moderate. Vegetation is characterized by western wheat, galleta, blue grama, winter fat, fourwing saltbush and sagebrush. Orthents-Rock outcrop association, very steep. This soil consists of gravelly clay loams, with rooting depths over 60 inches. Parent material of mixed alluvium derived from the Santa Fe Formation comprises this soil. Outcroppings are basalt escarpments. Average annual precipitation in this area ranges from 13 to 15 inches. Vegetation is characterized by pinyon, juniper, blue grama, and sideoats grama. Petaca very stony loam, 1 to 15 percent slopes. This is a shallow, well drained, nearly level to rolling soil on uplands. The parent material is derived from weathered basalt and mixed

		sediment. Average annual precipitation is 12 inches and effective rooting depth is 12 to 20 inches. Hazard of water erosion is moderate. Vegetation is characterized by big sagebrush, western wheatgrass, sideoats grama, fourwing saltbrush, and blue grama. Royosa-Orthents association, moderately steep. This association consists of moderately sloping to moderately steep, eroded soils along mesa and canyon breaks and on highly dissected hills. Typically, the surface layer has been lost through erosion and the subsoil is exposed. Effective rooting depth is 60 inches and average annual precipitation is 13 inches. Hazard of water erosion is moderate. Vegetation is characterized by pinyon pine, oneseed juniper, Indian ricegrass and blue grama. Royosa-Vibo association, moderately sloping. This association consists of nearly level to strongly sloping soils on low dunes and hills. Parent material is derived from mixed alluvium. Annual precipitation is 13 inches and effective rooting depth is 60 inches. Hazard of water erosion is moderate. Vegetation is characterized by pinyon pine, oneseed junpier, sand dropseed, Indian ricegrass, and blue grama. Silva-Sedillo association, gently sloping. These soils consist of loams, with rooting depths over 60 inches. Parent material formed from mixed alluvium and eolian material comprises this soil. Average annual precipitation in this area ranges from 11 to 13 inches. Vegetation is characterized by western wheat, blue grama, galleta and fourwing saltbush. Tinaja-Rock outcrop complex, 45 to 75 percent slopes. This complex consists of escarpments of colluvium derived from sandstone. Annual precipitation is 13 to 16 inches. Runoff class is high and available water capacity is low. Vegetation is characterized by oneseed juniper, pinyon pine, blue grama, muttongrass, sideoats grama, galleta, and mountain mahogany.
	Land Status Acreage	BLM: 5124 State: 0 Private: 0
	Management Objectives	The allotment is under an 'Improve' ('I') management category. 'I' category allotments are managed in a manner to help the allotment achieve satisfactory ecological condition in accordance with the Allotment Management Plan.
	Key Forage Species	Western wheat, blue grama, galleta, sand dropseed, muttongrass, Indian ricegrass, sideoats grama.
	Grazing System	No system is used at this time due to being unpermitted.
Current Conditions / Management	Actual Use	Actual use reports were not submitted since 1993. This allotment has been vacant. Historically 655 AUMs were

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<tr><td></td><td></td><td>permitted for this allotment.</td></tr>
<tr><td></td><td>Utilization</td><td>Due to the lack of staff, utilization studies have not been conducted.</td></tr>
<tr><td></td><td>Climate</td><td>The past water year (Oct. 1, 2009 – Sept. 30, 2010) the average temperature has been slightly below average (0 to 1 degrees Fahrenheit) and precipitation below average (0 to 3 inches of precipitation). The winter was slightly wetter (1.5 to 3 inches of precipitation) and was colder (3 to 4 degrees Fahrenheit). The spring was drier (0 to 0.75 inches of precipitation) and was colder (0 to 1 degrees Fahrenheit). This should provide below average plant growth for cool season plants. The summer precipitation was below average (0 to 1.5 inches) and slightly warmer (1 to 2 degrees Fahrenheit) which should provide below normal growth for warm season plants.

Global climate change resulting from increasing atmospheric CO_2 levels may accelerate rates of plant extinction and result in shifts in ecosystem structure (species diversity) and function. We anticipate that our monitoring efforts will track vegetation shifts allowing for management modifications to address local range impacts resulting from global climate change.</td></tr>
<tr><td></td><td>Trend</td><td>In 1989 monitoring transects and photo points were placed in the allotment to establish vegetation trend. In 2010 the BLM was unable to relocate the old site; however, a new site was established within the vicinity of the old site. The full findings are kept in the allotment file at the Taos Field Office, but 2010 findings are summarized below.

<table>
<tr><th>Plot #3</th><th>2010</th></tr>
<tr><td>Ground Cover</td><td>(%)</td></tr>
<tr><td>Bare Ground</td><td>60</td></tr>
<tr><td>criptogams</td><td>0</td></tr>
<tr><td>gravel</td><td>8</td></tr>
<tr><td>rock</td><td>0</td></tr>
<tr><td>litter</td><td>30</td></tr>
<tr><td>ARTR</td><td>1</td></tr>
<tr><td>GUSA</td><td>1</td></tr>
<tr><td>Species Composition</td><td>(%)</td></tr>
<tr><td>ARTR</td><td>72</td></tr>
<tr><td>GUSA</td><td>22</td></tr>
<tr><td>ELEL</td><td>4</td></tr>
<tr><td>OPPO</td><td>1</td></tr>
<tr><td>PLJA</td><td>1</td></tr>
</table></td></tr>
<tr><td></td><td>Riparian</td><td>There are no riparian areas within this allotment.</td></tr>
<tr><td></td><td>Wildlife</td><td>Seasonal home ranges in the allotment include those for deer, elk, bear, bobcat, fox, coyote, small mammals and reptiles, bats,</td></tr>
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		raptors, turkey vulture, songbirds, and a variety of insects. Elk especially use this allotment during winter months. Some dietary overlap occurs between wildlife and cattle; however, best management practices would ensure that forage production within this area can support both wildlife and livestock on a sustained basis. This allotment has potential for future projects to enhance wildlife habitat through vegetation treatments and water developments.
	Threatened and Endangered Species	It is determined that there are no federally listed threatened or endangered species likely to be found in the subject allotment. There is no designated critical habitat for any species listed by the USFWS within the allotment. Special status species that are likely to be found on the allotment (seasonally) include bald eagle and ferruginous hawk.
Findings / Rationale for the New Mexico Standards for Public Land Health		A Rangeland Health Evaluation Matrix was completed on September 17, 2010. This evaluation matrix is from Technical Reference 1734-6 "Interpreting Indicators of Rangeland Health." The actual matrix forms are available within the allotment file. Below is a summation of the information gathered by the on site evaluation. Within the Rangeland Health Attributes are three different categories of indicators. The categories include; Soil and Site Stability, Hydrologic Function and Biotic Integrity. The percent of indicator score was created by multiplying an assigned value for departure from site descriptions/reference areas by the number of indicators at the level. Departure scores are categorized as: none to slight = 5, slight to moderate = 4, moderate = 3, moderate to extreme = 2 and extreme = 1. For example, if all indicators under Soil/Site Stability were rated none to slight (best condition), the equation would be 5(score)*10indicators=50/50*100 = 100% similarity, or what is expected based on an Ecological Site Description. Soil and Site Stability Three indicators were deemed None to Slight, two were deemed Slight to Moderate, five were deemed Moderate, zero were deemed Moderate to Extreme, and zero were deemed Extreme to Total. Rating: 76% Hydrologic Function Two indicators were deemed None to Slight, two were deemed Slight to Moderate, six were deemed Moderate, zero were deemed Moderate to Extreme, and zero were deemed Extreme to Total.

		Rating: 72% Biotic Integrity Two indicators were deemed None to Slight, two were deemed Slight to Moderate, four were deemed Moderate, one was deemed Moderate to Extreme, and zero were deemed Extreme to Total. Rating: 71% Overall Rating: 73%
	Upland Standard	*Upland ecological sites are in productive and sustainable condition within the capability of the site. Upland soils are stabilized and exhibit infiltration and permeability rates that are appropriate for the soil type, climate, and landform. The kind, amount and/or pattern of vegetation provides protection on a given site to minimize erosion and assist in meeting Sate and Tribal water quality standards.* This allotment is not meeting the Upland Standard based on the above evaluation and information. Soils show some active erosion and degradation. Bare ground is very common and pedestals are frequent. A vegetation shift to shrubs has dramatically decreased the amount of herbaceous species resulting in less soil stabilizing plants. Improving plant communities will help to facilitate better infiltration and stabilize the soil surface.
	Biotic Communities Standard	*Ecological processes such as hydrologic cycle, nutrient cycle, and energy flow support productive and diverse native biotic communities, including special status , threatened, and endangered species appropriate to site and species.* This allotment is not meeting the Biotic Communities Standard based on the above evaluation and information. Historic land management practices and changes in wild fire regimes have probably impacted the current conditions. Sagebrush is extremely dominant. Shrubs make up 94% of the species composition. Very few herbaceous plants have allowed erosion events to become more frequent. Vegetation treatments will benefit the plant and wildlife communities on the allotment.
	Riparian Standard	*Riparian areas are in a productive, properly functioning and sustainable condition, within the capability of that site.* The Riparian Standard is being met for this allotment. Livestock grazing has been excluded from the Rio Grande riparian area by fencing. The draft Taos Resource Management Plan (RMP) is proposing to exclude livestock grazing below the rim preventing livestock use of the springs located within the allotment.
Conclusion		The New Mexico Standards for public land health are not being met; therefore a Determination Document is warranted. No grazing is currently authorized on the allotment. Continued monitoring will help establish future trend. It is recommended

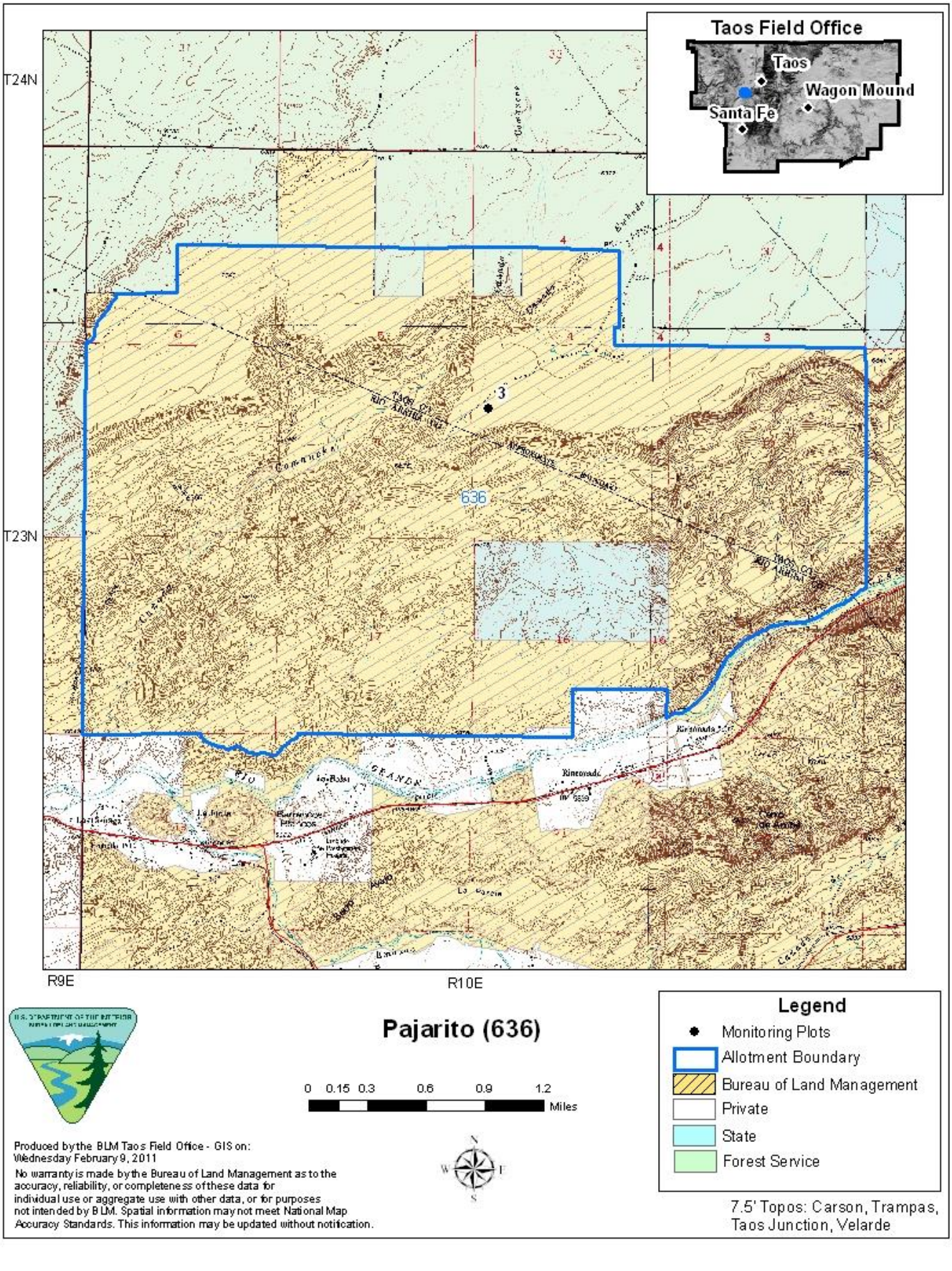
		that vegetation treatments be performed to improve wildlife habitat and promote herbaceous species. It is also recommended to see improvement made by less bare ground and greater herbaceous species composition, especially above the rim, before this allotment be authorized for grazing.

Consultation and Coordination

This Assessment and Evaluation Report has been sent or given to the affected permitee(s) / lessee(s), the interested publics and the following interdisciplinary team members for input and review:

Merril Dicks – Archeologist
Scott Draney – Department of Game and Fish
Greg Gustina – Fish Biologist
Pam Herrera-Olivas – Wildlife Biologist
Tami Torres – Outdoor Recreation Planner
Jacob Young – Rangeland Management Specialist
Paul Williams – Archeologist
Valerie Williams – Wildlife Biologist

This document was prepared by: Derek Trauntvein – Rangeland Management Specialist


Taos Field Office
Taos
Wagon Mound
Santa Fe
T24N
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636
3
Pajarito (636)
0 0.15 0.3 0.6 0.9 1.2
Miles
Legend
Monitoring Plots
Allotment Boundary
Bureau of Land Management
Private
State
Forest Service
7.5' Topos: Carson, Trampas, Taos Junction, Velarde
Produced by the BLM Taos Field Office - GIS on: Wednesday February 9, 2011
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